

# A new *Latiromitra* (Gastropoda: Ptychatractidae) from the Gulf of Mexico

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## ABSTRACT

*Latiromitra niveobabelis* new species is described and compared with the Philippine species *Latiromitra barthelowi* (Bartsch, 1942), and with the Atlantic species *Latiromitra cryptodon* (P. Fischer, 1882), *L. aratiuncula* (Quinn, 1981), *L. meekiana* (Dall, 1889), *L. costata* (Dall, 1890) and *L. styliola* (Dall, 1927).

Species assigned to the genus *Latiromitra* are relatively morphologically conservative; they are represented in the western Atlantic by five species. The new species proposed herein is known from only one empty shell; however, several of its conchological characters are quite distinct from any other *Latiromitra*.

## INTRODUCTION

For some twenty years the Biology Department at the University of Louisiana at Lafayette (ULL), has conducted a series of cruises in the Gulf of Mexico utilizing the R/V Pelican, a ship managed by the Louisiana Universities Marine Consortium (LUMCON). The most recent cruise, one of five executed under the Gulf of Mexico Research Initiative (GoMRI), was conducted in September, 2014. The cruise sampled deep-water areas west of the Dry Tortugas. It was in this southeastern quadrant of the Gulf where an empty specimen of an unknown species of the genus *Latiromitra* was dredged.

The genus *Latiromitra* has had a controversial saga in its systematic history. Species in that genus having been placed in Buccinidae (later transferred to Costellariidae) by Thiele (1929), in Fascioliariidae and Mitridae by Dall (1889 and 1890; and 1927 respectively), in Volutidae by Weaver and Dupont (1970) and in Volutomitridae by Cernohorsky (1970). Bayer (1971: 196) noted that the species, placed in *Latiromitra*, had “a closer affinity with the family Turbinellidae”, and latter workers followed his lead. Although Quinn (1981: 72) thought it necessary to create the new genus *Cyomesus* for some members of this group, Bouchet and Warén (1985: 255) concluded that Quinn’s taxon was synonymous with *Latiromitra*. Kantor (2014) places *Latiromitra* in Ptychatractidae, and I here follow his lead. The familial placement of the genus is tentative, as this is a “taxonomically complicated group” (Kantor, personal communication, Feb. 3, 2015), very similar to some of the deep water Costellariidae.

## SYSTEMATICS

Family Ptychatractidae Stimpson, 1865

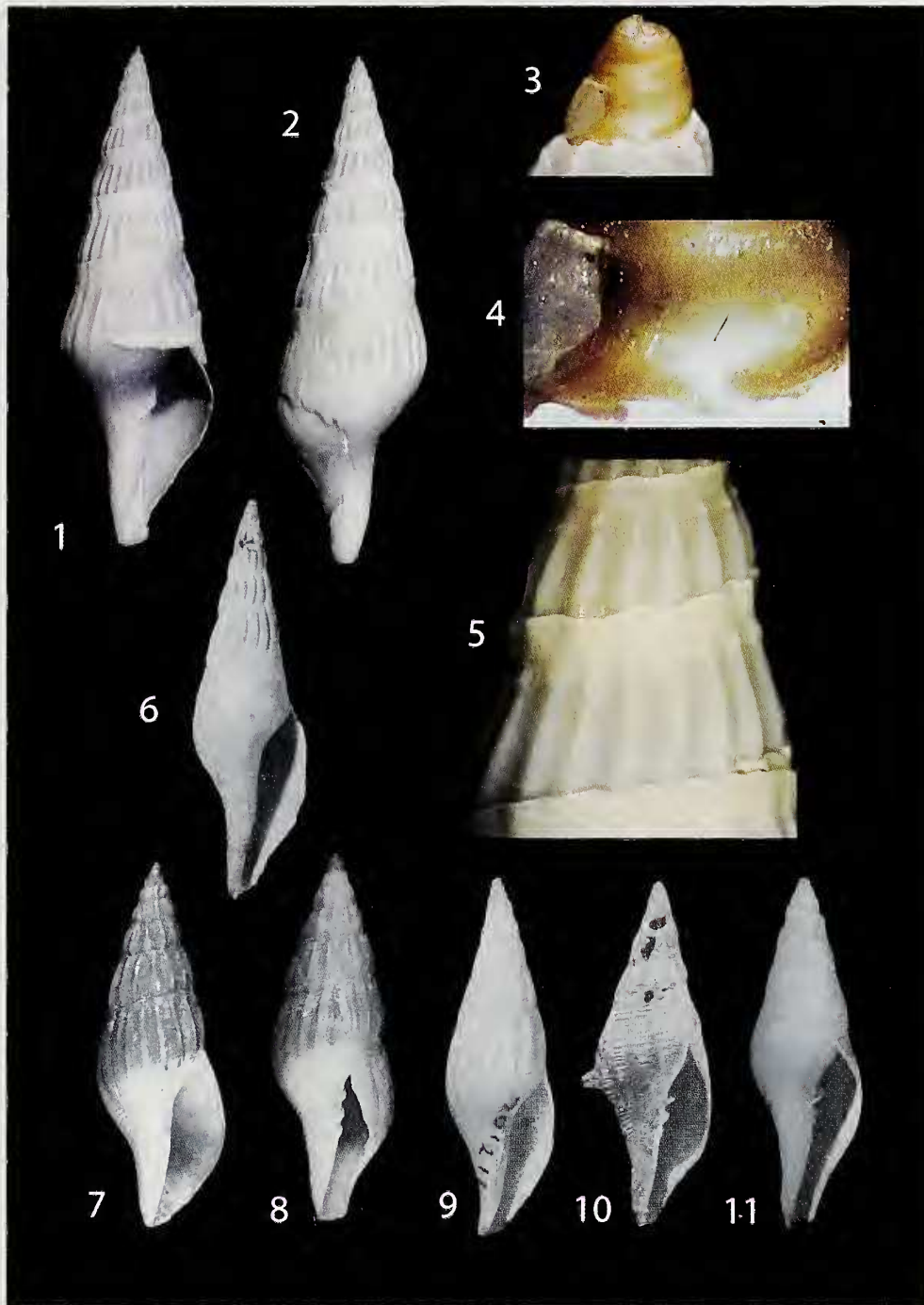
**Genus *Latiromitra* Locard, 1897**

**Type Species:** *Latiromitra specialis* Locard, 1897, by monotypy.

***Latiromitra niveobabelis* new species**  
(Figures 1–5)

**Diagnosis:** A milky-white, almost straight-sided, narrowly fusiform shell with a constricted subsutural band bordered posteriorly by strong, adpressed crenulations and anteriorly by a heavily nodulose spiral cord.

**Description.** Holotype 46.0 mm in length, strong, narrowly fusiform (length/width ratio 3.36); last teleoconch whorl 21.1 mm in length. Protoconch broadly conical (Figure 3), light amber in coloration, of approximately 2.5 whorls; first whorl damaged, smooth; second whorl smooth; last whorl developing weak, prosocline axial riblets on approximately last half of whorl (Figure 4); riblets growing stronger at termination of whorl. Transition to teleoconch abrupt, with a strongly prosocline transitional growth mark, a change in coloration from amber to milky-white, and a development of a round axial rib at start of teleoconch (Figures 3–4). Teleoconch of 8.5 whorls; whorls subsuturally constricted (Figure 5), only slightly convex anteriorly; last whorl strongly convex peripherally. Suture deep, heavily crenulate; crenulations strongly adpressed to earlier whorl, creating a narrow channel (Figure 5), this feature first appearing between second and third teleoconch whorls. Axial sculpture of strong, rounded ribs; ribs as wide as interspaces; 10 ribs on first



**Figures 1–10.** *Latiromitra niveobabelis* and other species for comparison. **1–5.** *Latiromitra niveobabelis* new species. Holotype, USNM 1274447, west of Dry Tortugas, 25°51.104' N, 84°52.278' W to 25°49.867' N, 84°52.400' W, in 1737 m, 46.0 mm. **6.** *Latiromitra barthelowi* (Bartsch, 1942). Holotype, USNM 238444, Cagayan Island, Sulu Sea, Philippines, 905 m, 27.5 mm. **7–8.** *Latiromitra cryptodon* (P. Fiseher, 1882). Syntype, off Morocco, 33°29' N, 09°38' W, 1900 m, 30 mm, photo by M. Caballer (MNHN). Project : E-Recolnat ANR-11-INBS-0004. **9.** *Teramachia chaunax* Bayer, 1971. Holotype, USNM 701216 west of St. Lucia, 13°45.5' N, 61°05.7' W, 201–589 m, 28 mm, photo by J.F. Quinn, Jr.. **10.** *Latiromitra aratiuncula* (Quinn, 1981). Holotype, USNM 784594, off Anguilla, 18°26.4' N, 63°63'12.6' W, 430 m, 29 mm (photo credit J. F. Quinn). **11.** *Latiromitra meekeana* (Dall, 1889). Lectotype, USNM 86970, off Morro Light, Havana, Cuba, 732 m, 15.5 mm, photo by J.F. Quinn, Jr.



whorl, gradually increasing to approximately 21 on penultimate whorl and 24 on last whorl; a few, weak secondary axial riblets sporadically appearing on last whorls; axial sculpture diminishing towards anterior end of last whorl, completely disappearing at siphonal canal. Spiral sculpture of two strongly nodulose cords on first whorl; first cord at suture; second cord just below; sutural cord later creating a narrow, heavily crenulate channel (Figure 5); both spiral cords delimiting a constricted band subsuturally, of approximately 2 mm in width on last whorl; weak, secondary spiral threads covering the surface of the shell, crossing over axial ornamentation creating subtle nodes; approximately 20 stronger spiral cords developing at anterior end of last whorl. Aperture narrowly elongate, approximately 19 mm in length; outer lip thin; parietal wall with three oblique, well-developed lamelliform plaits; posterior plait strongest. Shell milky-white, with a faint yellowish coloration showing at, and restricted to, the subsutural band.

**Type Material:** Holotype USNM 1274447, length 46.0mm, width 13.7 mm.

**Type Locality:** West of Dry Tortugas, USA (25°51.104' N, 84°52.278' W to 25°49.867' N, 84°52.400' W, in 1737 m (GoMRI-V, station 10).

**Distribution:** Known only from the type locality.

**Habitat:** *Latiromitra niveobabelis*, like other congeners, is a deep-water species. It was collected in a mud bottom with rubble. Other notable species dredged in the same haul were *Theta chariessa* (Dall, 1889) and *Stellatoma antonia* (Dall, 1889).

**Etymology:** A combination from the Latin adjective *niveo*, and the biblical tower of Babel; referring to the white, tower-like shape of the shell.

**Remarks:** The tapered profile of the new species is most similar to the western Pacific *Latiromitra barthelowi* (Bartsch, 1942), but the latter has a paucispiral protoconch, weak axial ornamentation after the fourth whorl and, of the three columellar plaits, the abapical one is weak to absent (Bouchet and Kantor, 2000: 13). The new species is also similar to *Latiromitra cryptodon* (P. Fischer, 1882) (Figures 6–9), an amphiatlantic species ranging, in the western Atlantic, from the Bahamas to Brazil (Rosenberg, 2009). This species differs from *Latiromitra niveobabelis* in having a different protoconch sculpture (see Bouchet and Kantor, 2000: 10, fig. 5K), in having fewer teleoconch whorls, in lacking the well-developed, constricted subsutural band (compare Figures 5 and 6), in having weaker sutural crenulations, and in having different coloration. Caribbean specimens of *Teramachia chaunax* F.M. Bayer, 1971 (Figure 9), a junior synonym of *L. cryptodon*, have a more slender profile than the NE Atlantic and Brazilian specimens of *L. cryptodon*; how-

ever, they are otherwise undistinguishable from the type material of the latter (Bouchet and Kantor, 2000: 10).

*Latiromitra aratiuncula* (Quinn, 1981) (Figure 10), from off Anguilla, lacks the constricted subsutural band, has coarser shell ornamentation with stronger spiral cords, and fewer axial ribs. *Latiromitra meekeana* (Dall, 1889) (Figure 11), the only *Latiromitra* recorded from the Gulf of Mexico (Rosenber et al. 2009), has a paucispiral protoconch of 1.3 whorls, is pale waxen or brownish in coloration, lacks the constricted subsutural band and is almost smooth after the fourth whorl. *Latiromitra costata* (Dall, 1890) is much smaller, has strongly convex whorls, and fewer, stronger axial ribs. *Latiromitra styliola* (Dall, 1927), which has tentatively been placed in *Latiromitra* by Bouchet and Kantor (2000) has a protoconch of 1.5 whorls, has 5 teleoconch whorls and reaches 11 mm in length.

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